Remarks:

Applicant has read and considered the Office Action dated June 23, 2009 and the references cited therein. Claims 1, 9, 17, 26 and 27 have been amended. Claims 1-27 are currently pending. Reconsideration is hereby requested.

A Notice of Appeal was filed December 23, 2009. Applicant hereby withdraws the Appeal.

Applicant's Representative Gregory Sebald spoke via telephone with Examiner Hilina Kassa on June 23, 2010. It was discussed that an interview had already been granted and that the application status was After Final. The Examiner indicated that she would contact Applicant's Representative after receipt of the response if the amendment did not place the application in condition for allowance. Applicant's Representative thanks the Examiner for her consideration and assistance.

The present invention involves the distribution and printing of copies of electronic document data. After distribution, user input can be entered that affects a printed bar code when the document is printed. The copies of the electronic document data are distributed with a program of instructions that is embedded in the copies. The embedded program is used to control translation of the user data into printer commands to print the bar code.

An important aspect of the present invention is *the level of control over the printing commands* that is provided by the embedded program or, in other words, the distribution of control layers between the embedded program in the distributed document and the computer systems to which it is distributed.

To understand the concepts relating to different levels, it should be noted that one can distinguish several control levels of printing control. At a high level, control is based on

character codes (code words) and at a low level control may be based on individual pixels in a printed pattern. An intermediate level between these two involves commands to print geometrical elements below the level of characters, i.e. at a level at which the representation of each character (code word) is made up of a plurality of geometrical elements. In conventional methods, the level of printing control that involves selection of geometrical elements is implemented in a supporting system outside a document.

An important aspect of the present invention is that **the level of printing control is implemented in a program of instructions that is embedded in the document and distributed in copies of the document**. After distribution, this embedded program causes a processor to receive user input from an input field in the document and process the input to the point of generating commands to print geometrical elements, at a level of representation wherein multiple geometrical elements are used to represent a code word.

Therefore, the invention increases the degree of control over the bar code that is provided from the distributed document itself. This is fundamentally different than conventional approaches wherein this level of control is provided in the supporting system, outside the distributed copy of the document. This system solves problems such as those mentioned on page 3 lines 12-24 of the present application.

The cited prior art describes various ways in which a bar code encoder could add information to a bar code. Xu discloses printing of a bar code with an embedded graphic. Marshall discloses the use of different colors in the bar code as an authentication feature.

These references provide typical examples of operations that cannot be controlled at a level of characters (code words) derived from an input field, and as such, are examples where the present invention would be useful. Applicant notes that Xu and Marshall discuss the

implementation of their inventions in general terms. Xu discloses an encoding device 6 to embed the graphic (see figure 1) and Marshall speaks of a program to add authentication features.

Neither reference suggests that the encoding device or the program should be distributed embedded in the document. Moreover, Marshall only mentions embedding bar code features in the document. At best one could argue that this may involve embedding print commands in the document. However, it does not teach or even suggest that the program that does the embedding is itself embedded.

The rejections in the Office Actions have relied on an identification of embedded printable data from the prior art to teach a program of embedded instructions of the claims of the present application. As explained during the telephone interview, because the printable data controls printing, it can be broadly characterized as a program, or in other words, a program of instructions is a genus term that covers the disclosed species of printable data.

To provide clarification over the prior art, the claims have been amended and recite that the program of embedded instructions does not cover mere data. The claims now emphasize that the instructions receive and transform input data. It is submitted that this patentably distinguishes the program of instructions from mere printable data. Printable data generally only provides the ability to control printing and cannot respond to variable user input data. This difference is further specified by claim language that recites that the embedded program is distributed with copies of the data before the user defined input is received. This is neither shown nor suggested by the prior art.

From the telephone interview of March 2, 2010, it was understood that the claims were interpreted as not properly distinguishing the embedded program from embedded print control data. The amendment to recite a program that performs processing responsive to input characters now provides this distinction. Applicant asserts that the claims as submitted patentably

distinguish over the prior art.

The Office Action cites Marshall for the notion of user input information embedded in electronic document data. The Office Action first refers to column 2 lines 11-13 of Marshall, which states: "a computer program embodied on a computer readable medium for embedding security features within bar codes". However, these lines do not state that the computer program is embedded in a document; they only state that the security codes are embedded in a bar code. Moreover, this section does not identify the location of the "computer readable medium", which is no more than language to identify a product for 35 U.S.C. Section 101.

The Office Action also cites column 5 lines 6-12, which disclose that the bar code includes printed characters of a different color. Again these lines are silent about the location of the program that defines the bar codes. The Office Action notes that user inputs are needed, but again this does not show whether the program is embedded.

Finally, the Office Action cites Marshall for the notion that it has an embedded program that generates print commands for geometric elements and refers to column 2, lines 11-17. Applicant does not deny that the function of Marshall's program may be similar. However, lines 11-17 merely disclose a program for performing the function of embedding security features in a bar code, but do not teach or suggest that the program itself is embedded in the electronic document.

In summary, the cited section of Marshall only discloses embedding features in bar codes, which is performed by a program. But Marshall does not disclose or suggest that this program is embedded in the electronic document. At most, Marshall could be said to disclose or suggest an embedding program but not an embedded program. Applicant asserts that the claims now recite a method, a document, a form and a processor that now clearly distinguish the level of control of the program and where and how the program is embedded that is neither shown nor

suggested by the prior art or any combination thereof. Applicant requests that the rejections be withdrawn.

A speedy and favorable action in the form of a Notice of Allowance is hereby solicited. If the Examiner feels that a telephone interview may be helpful in this matter, please contact Applicant's representative at (612) 336-4728.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

MERCHANT & GOULD P.C.

Dated: 6/23/10

By: _____
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